

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-021322**Date Inspected:** 03-Mar-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Mr. An Qing xiang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Orthotropic Box Girder( OBG)**Summary of Items Observed:**

This CALTRANS OSM Quality Assurance Inspector (QA) Surendra Prabhu was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

OBG Assembly bay- 14.

The following Non Destructive Testing (NDT) Inspection was carried out as per the ZPMC submitted Notification No.08438.

Ultrasonic Testing (UT)

This QA performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA generated a UT report for this date. The members are identified as OBG weld Components. Total number of welds UT Tested: 10 No's. The weld designations inspected were as follows:

1. SEG3019BB-147
2. DP3162-001-131~134,187~189
3. DP3163-001-114,164

This QA Inspector randomly observed the following work in progress:

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Shielded Metal Arc Welding (SMAW) repair welding of weld joint identified as DP3174-001-393. Welder is identified as 066674. ZPMC Quality Control (QC) is identified as Mr. Shi lei. The welding variables recorded by QC personnel observed appeared to comply with Welding Procedure Specification (WPS): WPS-345-SMAW-3G (3F)-FCM-repair. The repair welding was being performed as per Welding Repair Report (WRR) No: B-WR20313. This weld was previously rejected by ZPMC QC personnel and recorded on UT report B787-UT-20312.

SMAW repair welding of weld joint identified as DP3174-001-394. Welder is identified as 067588. ZPMC Quality Control (QC) is identified as Mr. Shi lei. The welding variables recorded by QC personnel observed appeared to comply with WPS: WPS-345-SMAW-2G (2F)-FCM-repair. The repair welding was being performed as per WRR No: B-WR20313. This weld was previously rejected by ZPMC QC personnel and recorded on UT report B787-UT-20312.

SMAW repair welding of weld joint identified as DP3172-001-020. Welder is identified as 066002. ZPMC Quality Control (QC) is identified as Mr. Shi lei. The welding variables recorded by QC personnel observed appeared to comply with WPS: WPS-345-SMAW-2G (2F)-FCM-repair. The repair welding was being performed as per WRR No: B-WR20318. This weld was previously rejected by ZPMC QC personnel and recorded on UT report B787-UT-20327.

Flux Cored Arc Welding (FCAW) welding of weld joint identified as SEG3020AJ-208. Welder is identified as 066359. ZPMC Quality Control (QC) is identified as Mr. An Qing xiang. The welding variables recorded by QC personnel observed appeared to comply with WPS: WPS-B-T-2233-ESAB.

FCAW welding of weld joint identified as SEG3013AJ-258. Welder is identified as 047866. ZPMC Quality Control (QC) is identified as Mr. An Qing xiang. The welding variables recorded by QC personnel observed appeared to comply with WPS: WPS-B-T-2233-ESAB.

AB/F QA Inspector performing Magnetic Particle Testing on weld back gouged areas for the weld joints identified as SEG3020BB-022. Refer the attached photos for reference.

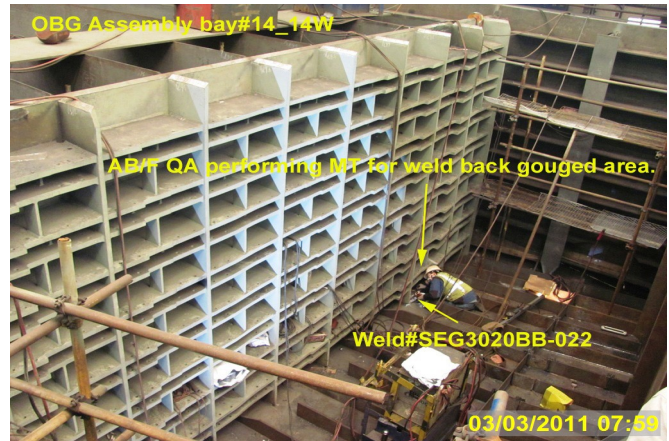
Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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## Summary of Conversations:

No significant conversations were reported on this date.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

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**Inspected By:** Prabhu,Surendra

Quality Assurance Inspector

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**Reviewed By:** Peterson,Art

QA Reviewer